

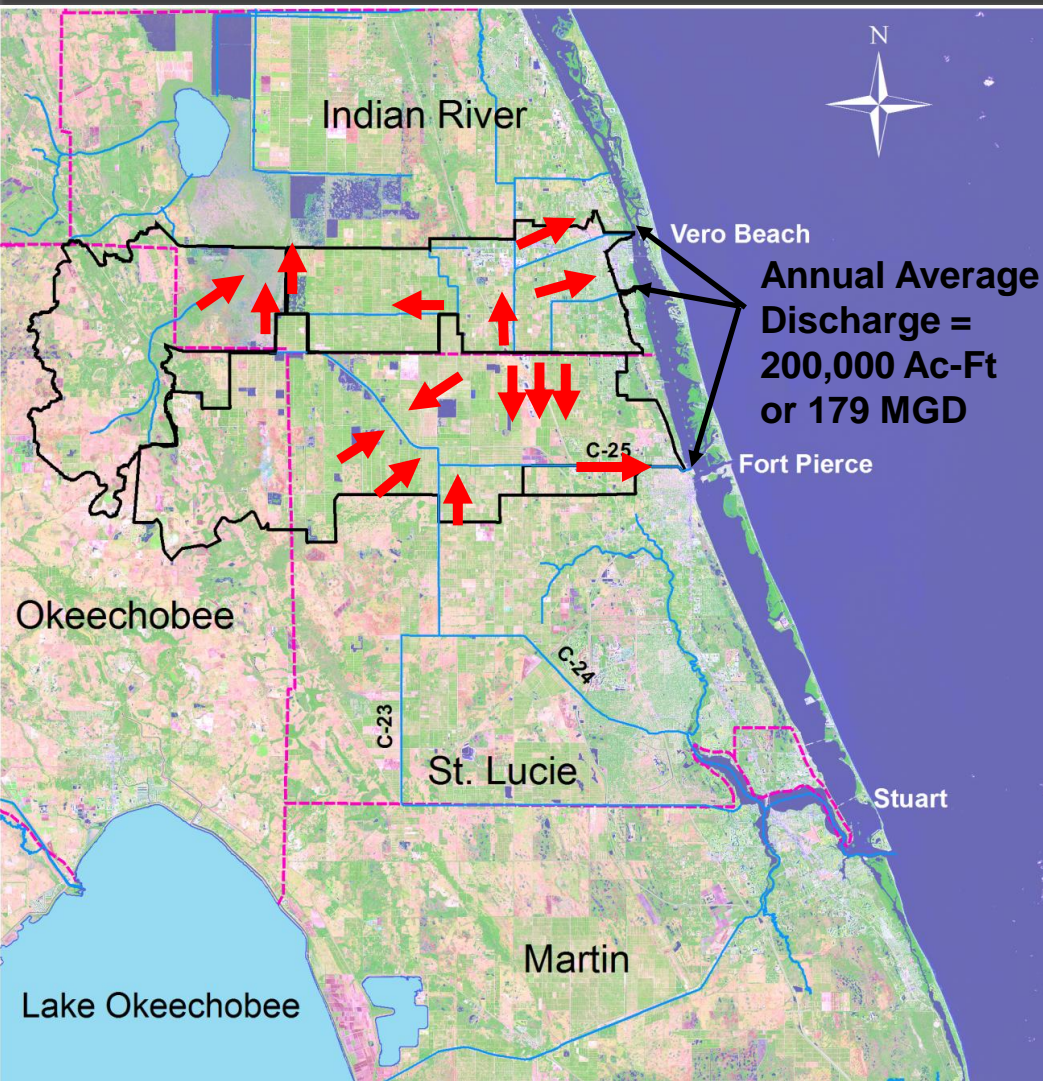


# **St. Lucie and Indian River Counties Water Resource Study**

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Water Supply Development Division**

**December 10, 2009**

# St. Lucie and Indian River Counties Water Resource Study



## Study Background

- Construction of C&SF Project significantly effected historic drainage in this area
- Large volumes of water discharged during the wet season through canals
- Upper East Coast Water Supply Plan recommended studying capturing this water for beneficial uses



# St. Lucie and Indian River Counties Water Resource Study



## Study Overview

- Co-sponsored by SFWMD & SJRWMD
- Initiated February 2009
- Completed November 2009
- Extensive outreach
  - Interagency project team meetings
  - Stakeholder meetings and workshops

# St. Lucie and Indian River Counties Water Resource Study

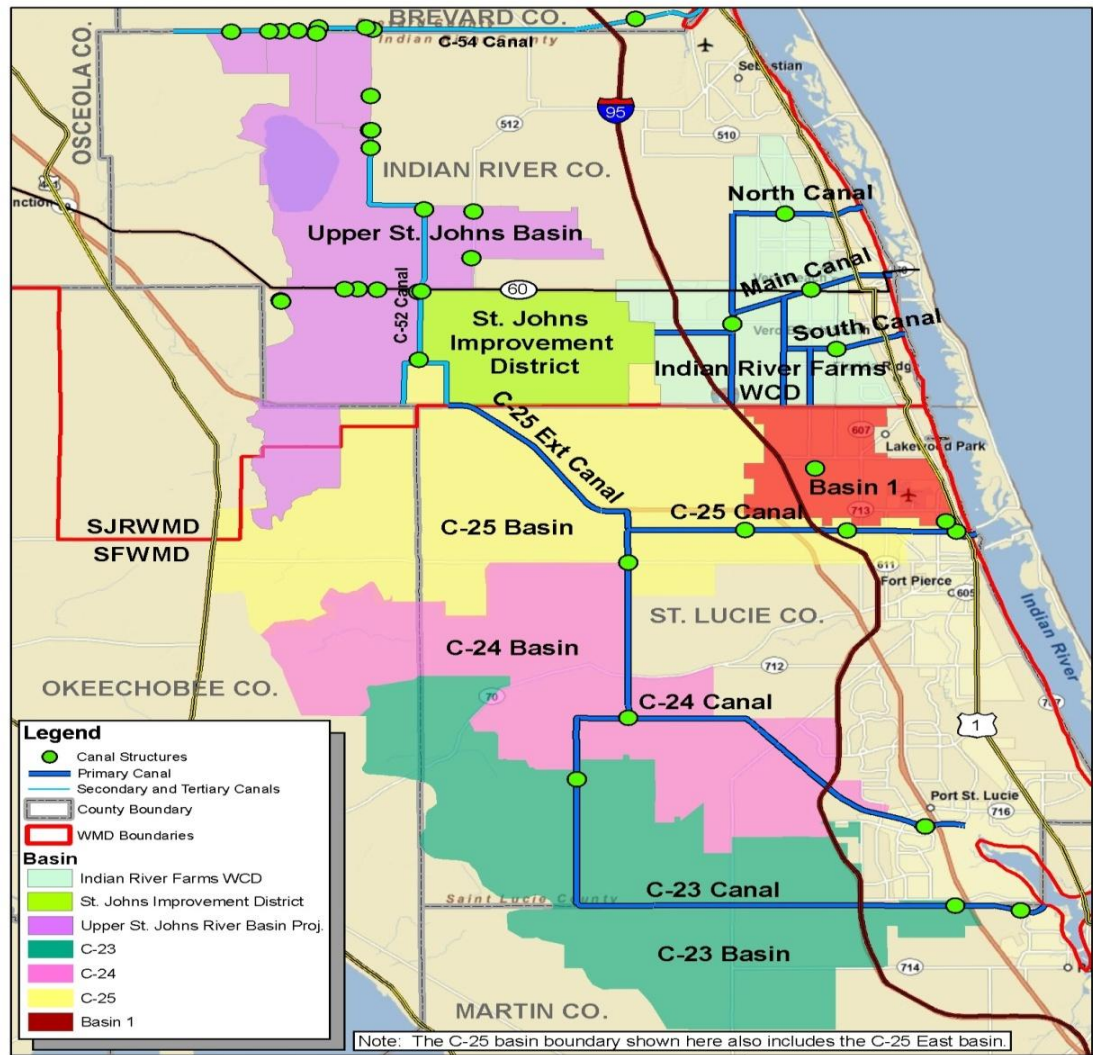


## Study Objectives

- Evaluate potential of capturing excess water being discharged to Indian River Lagoon & making it available for beneficial uses
- Evaluate options for increased flexibility in water management
- Identify & evaluate conceptual alternatives
- Provide a conceptual design for a preferred alternative
- Develop an implementation strategy

# St. Lucie and Indian River Counties Water Resource Study

## Study Area





# St. Lucie and Indian River Counties Water Resource Study



## Final Alternative Plans

- C-25 Central Storage Reservoir
- C-23, 24, and 25 Central Storage Reservoir
- C-25/Basin 1 Central Storage Reservoir
- Indian River Farms WCD Reservoir
- Dispersed storage/water farming

# St. Lucie and Indian River Counties Water Resource Study

## Evaluation Matrix

| Alternative Plan | Discharge Delivery Rate –<br>90% Reliability (cfs/mgd) | Flow Reductions to<br>IRL (acre-ft/yr) | Present Value Life<br>Cycle Costs |
|------------------|--|--|-----------------------------------|
| ICS-01(A)        | 90/58  | 78,897                                 | \$177,875,000                     |
| ICS-01(B)        | 67/48  | 58,563                                 | \$131,478,000                     |
| ICS-02(A)        | 185/120  | 142,236                                | \$309,072,000                     |
| ICS-02(B)        | 140/90   | 113,139                                | \$211,396,000                     |
| ICSB-01          | 108/70   | 84,462                                 | \$193,074,000                     |
| IRFWCD-R(A)      | 63/41  | 44,295                                 | \$98,239,000                      |
| IRFWCD-R(B)      | 53/34  | 40,214                                 | \$61,656,000                      |

# St. Lucie and Indian River Counties Water Resource Study

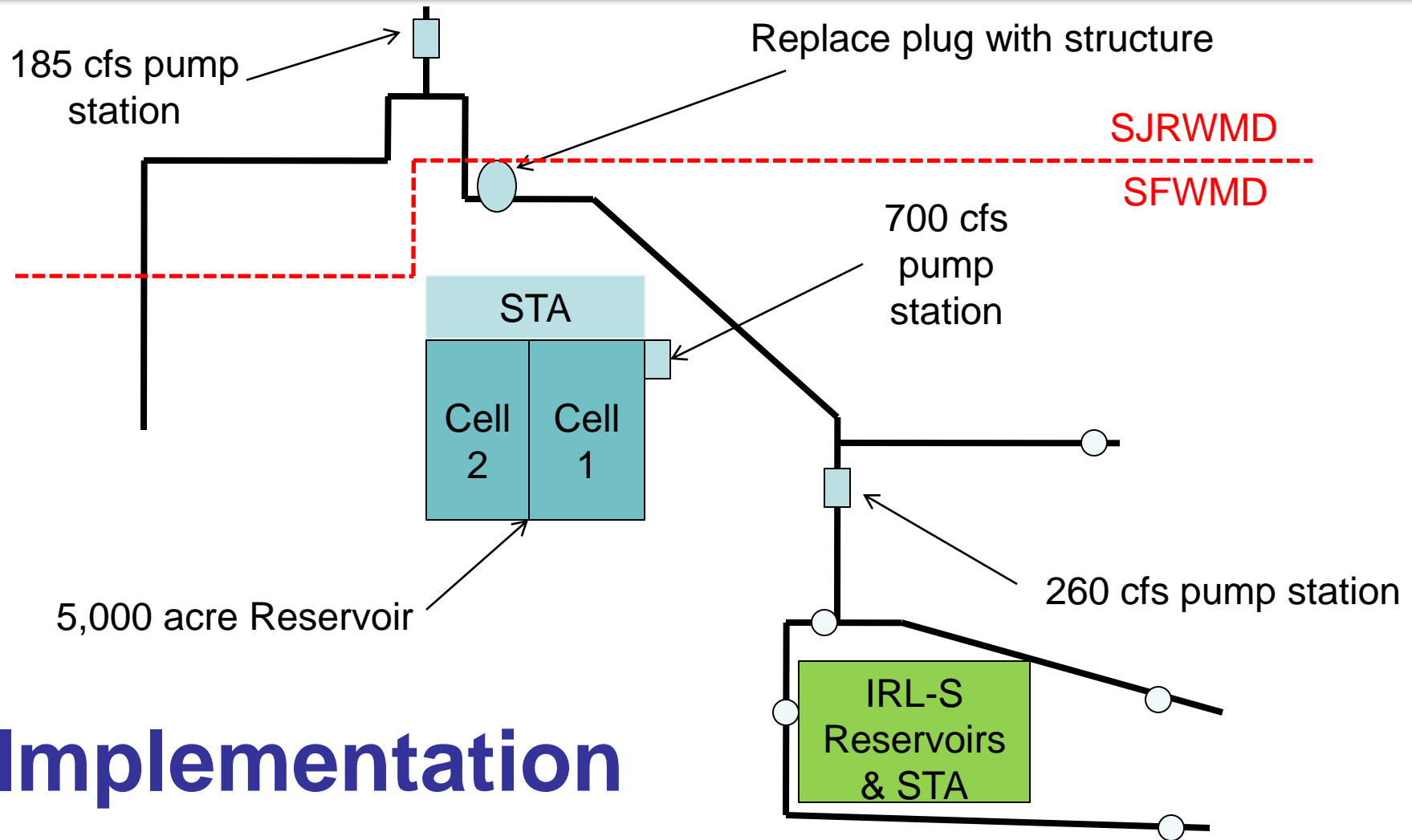


## C-23, 24, 25 Central Reservoir Plan – Preferred Alternative

- 5,000-acre central storage reservoir
- 5,000-acre stormwater treatment area
- Replace C-25 plug with water control structure
- C-25 canal improvements
- G-81 pump station
- S-253 pump station



# St. Lucie and Indian River Counties Water Resource Study



## Implementation

# St. Lucie and Indian River Counties Water Resource Study

## Questions